Nordic/Baltic Regional ESTH Hub e-Letter

Welcome to the latest e-Letter, our *unclassified* electronic publication sharing regional information, news and events. We encourage you to visit the websites of our Embassies throughout the Hub. Feel free to disseminate to your contacts! At the very end of the e-letter you will find our featured story, offering background on Low Emissions Development Strategies (LEDS).



AROUND THE REGION.....

DENMARK

Ambassador visits innovative Danish health, robotics sites. On March 16th, Ambassador Fulton visited Danish institutions undertaking groundbreaking health care technology research. First stop was the Danish Technological Institute (DTI)'s Center for Robot Technology, which develops and disseminates new technologies. The Ambassador toured their *CareLab*, used

by researchers to test and showcase health care innovations. DTI is active in Denmark, Sweden and Poland, with plans to expand into the U.S. Read more about the <u>Center for Robot Technology</u> and the <u>CareLab</u>. At Odense University Hospital, Ambassador Fulton was briefed on how new technology provides more efficient and cost-effective health care, and participated in a telemedicine session. Want to <u>read more</u>? (photo: Ambassador Fulton with the dedicated telemedicine staff)

Arctic Health Ministerial. The first-ever Arctic Health Ministers' meeting recently occurred in Nuuk, Greenland. Seeking to strengthen circumpolar cooperation on health issues, the meeting concluded with the signing of the Arctic Health Declaration. The U.S. delegation was chaired by U.S. Department of Health and Human Services Global Health Affairs Director Dr. Niels Daulaire. Read more

Melting ice sheets, Operation IceBridge. The Greenland and Antarctic ice sheets are losing mass at an accelerating pace, according to a new NASA-funded satellite study. Study findings suggest these ice sheets are significantly contributing to global sea level rise. Read more here. Under Operation IceBridge, NASA has flown annual campaigns over the Arctic and Antarctica. The mission "bridges" the multi-year record of ice elevation measurements





made by NASA's Ice Cloud and Land Elevation Satellite (ICESat), which stopped collecting data in 2009, and the upcoming ICESat-2, scheduled for launch in 2016. Check out the IceBridge website. (photo: NASA IceBridge flight).

LED project hopes to turn streetlights green. Danish authorities look to reduce their energy bills by finding ways of making streetlights generate their own power. The project, part of an overall effort to develop a carbon-neutral infrastructure, received a 1.6 million kroner (USD 307,000) grant from the Danish Energy Association. Read more



ESTONIA

GLOBE Seasons and Biomes workshop. On March 10th-13th, GLOBE teachers, trainers and scientists met in Võru, Estonia to take part in a four-day Seasons and Biomes workshop. The U.S. team consisted of Professor Elena Sparrow, Project Coordinator/teacher trainer Martha Kopplin and GLOBE trained marine scientist Bill Kopplin. In total, about 50 teachers from Estonia, Switzerland and Belgium attended. The seminar was supported by U.S. Embassy Tallinn, the GLOBE Seasons and Biomes Earth System Science Project, the University of Tartu and the European Social Fund. The workshop

focused primarily on teaching strategies, how to integrate the GLOBE model for student scientific research into activities and providing a better understanding of earth system science. After the training, ten new schools joined the GLOBE program, bringing the total of participating schools in Estonia to 74. (photo: Dr. Elena Sparrow, University of Alaska Fairbanks)

FINLAND

Nokia starts employee talks. Nokia, the world's top cell phone maker, said it will start talks with Finnish employees over the company's new strategy. Unions fear could cost more than 5,000 jobs in the Nordic country. Read more



Finland's First Five-Story Wooden Apartment Building. Finland's first five-story wooden building is currently under construction in Helsinki. The hybrid wooden apartment building will contain 27 apartments. The project will be completed this year (photo left). Read more

Stanford University to Help Boost Aalto

University's Entrepreneurship Programs. The Aalto Center for Entrepreneurship has launched



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an extensive partnership with Stanford Technology Ventures Program, the world-renowned center on entrepreneurship and innovation. Over the next three years, the partnership program will bring Silicon Valley know-how about high-growth entrepreneurship education and research to Aalto University. The partnership aims to create new expertise and research regarding innovations, ventures and workplaces that are required by Finland and Europe to increase competitiveness. Read more. For more information on the program, click here.

GERMANY



Carbon registries reopened. Germany was one of the first E.U. countries to reopen their carbon registries, weeks after carbon permit thefts stopped spot trading. Read more

Germany may increase pace of grid projects. Germany may speed the pace of power-line projects to transmit more renewable energy to consumers. This move occurs in the wake of Japan's nuclear disaster. Read more

After closing 7 nuclear plants, Germans plug into imported nuclear power. In cautious reaction to the nuclear disaster in Japan, Germany shut down seven of its

nuclear power plants. To make up for lost power, the country has since been importing from France and the Czech Republic. Read more

ICELAND

Using Green Energy to Export Green Energy. U.S. company Globe Specialty Metals, Inc. (GSM) signed an investment agreement with the Government of Iceland to build a silicon metal facility. The plant will need 65 MW to produce 40,000 megatons of metallurgical silicon for solar panel parts. The total investment amounts to \$135 million and is the largest new



foreign direct investment in Iceland since 2008's economic collapse. The U.S. Embassy counseled GSM when it was considering Iceland for the project and was acknowledged by GSM's founder and Executive Chairman, Alan Kestenbaum, in his remarks at the signing ceremony. GSM cited



Iceland's abundant green energy as a main factor in its initial interest in Iceland. Minister of Industry and Energy, Katrin Juliusdottir, said at the ceremony that this plant could mark the beginning of making Iceland a part of the growing solar cell industry and stated that "green energy used for the purpose of harnessing green energy as solar power is everyone's dream." (Photo from left: Luis Arreaga, United States Ambassador to Iceland, Magnús Garðarsson, Director of ISC,Katrín Júlíusdóttir, Minister of Industry, Alan Kestenbaum, Executive Chairman of Globe Specialty Metals Inc, Steingrímur J. Sigfússon, Minister of Finance, Árni Sigfússon, Mayor of Reykjanesbær.)

Eyeing giant cable to sell power to Europe. Iceland is considering building the world's longest sub-sea electric cable, allowing it to sell geothermal and volcanic energy to Europe. Read more

Iceland's president pushes U.S. to lead geothermal power development. Iceland's head of state wants the United States to go with geothermal power in a big way, while lamenting how wind and solar energy are getting all the attention in America's clean energy technology push.

LATVIA



New Embassy Compound Energy
Efficiency. At an April 7, 2011 Energy
Efficiency Forum organized by the Latvian
Energy Efficiency Association and the
European Commission, U.S. Embassy Riga
Facility Manager Keith Reling and OBO Project
Director Cecil Smith spoke on the energy
efficiency features of the New U.S. Embassy
Compound (NEC) scheduled to open later this
year. Mr. Smith focused on the NEC's design
characteristics, emphasizing efforts to reach
Leadership in Energy and Environmental

Design (LEED) Silver Certification through sustainable site selection, energy/water efficient design and the use of regionally-produced materials. Mr. Reling focused on systems management, explaining how the NEC's Power Monitoring and Building Automation System will allow FMO to compile and utilize consumption data to achieve even greater energy savings over the years. Forum participants responded enthusiastically, asking questions about LEED standards, consumption data tracking, and the U.S. government's design cost-benefit analysis. (photo: New U.S. Embassy Compound)

Waste Disposal. Over 120 million Euros will be invested to improve waste disposal, with three main goals: eliminating small dumpsites, constructing landfills and providing a collection system allowing garbage separation. Read more



Green Growth Conference in Riga 5-6 May. The conference is organized by the European Commission DG Regional Policy in cooperation with INTERACT, the Nordic Council of Ministers Secretariat and the Baltic Development Forum. Read more

LITHUANIA

Latvian, Lithuanian presidents discuss energy.

The presidents of Lithuania and Latvia met in Vilnius, discussing energy cooperation and a liquefied natural gas terminal construction. (photo: Lithuanian President Dalia Grybauskaite and Latvian President Valdis Zatlers). Read more



NORWAY

Building the Supergrid: At 800 km, the world's longest sea based transmission line is planned. Norwegian Statnet and Brithish National Grid are looking into adding another 1400 MW transmission line to the already-planned 1200-2000 MW. Expected benefits include security of supply, stable prices and integration of more renewable energy (mainly Norwegian hydro and British wind power) (map to the left: map indicating the approximate position of the proposed transmission line).

India, Norway -- Joint Polar Research. The recent "Pole to Pole" meeting outlined potential in enhancing collaborative polar research between India and Norway. The countries are the nearest neighbors in Antarctica and have been carrying out joint research in the past. Read more

Climatic variations control CO₂ uptake. According to researchers from the Center for International Climate and Environmental Research – Oslo (CICERO), the CO₂ content of the Nordic seas and the Barents Sea has changed dramatically over the past 20 years, possibly due to water mass redistribution. Read more

Russia/Norway Barents Sea. The bilateral delimitation agreement recently passed the Russian Duma. (map to the right indicates the agreed compromise "Kompromisslinjen") Read more



POLAND

Ambassador Tours Institute of Aviation. Ambassador Feinstein visited the Institute of Aviation



in Warsaw, a premier Polish research institution that supports advanced research with U.S. partners like General Electric (GE), Pratt & Whitney, Boeing and United Technologies Corporation (UTC). With CEO Witold Wiśniowski as his guide, the Ambassador toured GE's state-of-the-art oil and gas drilling laboratory. Read more

Poland explores the costs of a low-carbon economy. According to a World Bank report, Poland can shift to a low-carbon

economy without breaking its bank. At an event at the Polish Embassy in DC, lead author Erika Jorgensen discussed the report, "Transition to a Low-Emissions Economy in Poland." Read more and watch interviews at the World Bank Website

RUSSIA

Explorers Plan First Russia-Canada Voyage via North Pole. A Russian-led expedition aims to make the first-ever crossing from Russia's Arctic shore into Canada over the North Pole, a monthslong voyage over precarious shifting ice floes. <u>Read more</u>



complex. Read more

Russia launches key satellite. Russia successfully launched a satellite vital to the deployment of its own navigation system after the failure of an earlier attempt prompted the Kremlin to sack two top space officials. Read more

Russia designs nuclear train. Rosatom and Russian Railways are developing a nuclear powered train. The train engine will be a small fast breeder reactor, and, in its initial stage, the train will be a scientific exhibition

Russian fisheries back on old heights. The Russian fish industry in 2010 caught a total of 4.1 million tons of fish, a returned to the catch volumes of 1991. This is historical, the leader of Russia's Fishery Agency notes. Read more



SWEDEN

SAGA's One Year Anniversary; Swedish Municipalities Lead SAGA Delegation. The one year anniversary of the Swedish American Green Alliance (SAGA) was recently celebrated. SAGA intents to increase collaboration between Sweden and the United States in the fields of energy and environment. Read more Additionally, Sweden was the only country invited to participate in the 2011 U.S. National League of Cities' annual conference. This was made possible through SAGA. A delegation consisting of five leading Swedish municipalities in the environmental field shared experiences and best practices with mayors and representatives from over 1000 U.S. cities. Read more

U.S. Embassy Stockholm Meets Green Companies and Organizations in Växjö. On February 10th, U.S. Embassy Stockholm made a Road Show stop in <u>Växjö</u> in <u>Kronoberg County</u>. Considering the fact that Växjö was dubbed "the greenest city in Europe" by BBC and ICLEI a couple of years ago, the visit had a clear environment theme. During a session titled SAGAstund, four local companies and organizations presented their and Växjö's sustainable success stories to the U.S. Ambassador to Sweden, Matthew Barzun. Växjö has reduced its annual



CO2 emissions down to three tons per capita--an impressive number considering the average is six tons in Sweden and nine tons in Europe. (photo: Ambassador Matthew W. Barzun and Governor Kristina Alsér of Kronoberg County)

Senior Fellow from the Center for American Progress Visited Sweden. From March 9 to 11th, Dr. Andrew Light from the Center for American Progress visited Sweden to share his insights on U.S. climate policy and to meet with local climate experts. At an event hosted by think-tanks Cogito and Arenagruppen in Stockholm, Dr. Light put special emphasis on regional and state initiatives in the United States. Read more

Ikea to Build Wind Energy Park in Sweden. Ikea Group, the world's biggest home-furnishings retailer, will build a wind park in Sweden to meet the electricity needs of its 17 in-country stores. The park will have nine turbines and be located in the central province of Dalarna. O2 Vind AB, a Stockholm-based wind developer, will oversee construction. production is scheduled to start early 2012. Read more



EUROPEAN UNION

The European Commission adopts Emissions Roadmap. The Roadmap describes a cost-effective pathway to reach the EU objective of cutting greenhouse gas emissions by 80-95% of 1990 levels by 2050. Based on the cost-effectiveness analysis undertaken, the Roadmap gives direction to sectoral policies, national and regional low-carbon strategies and long-term investments. Read more

EU sees alarming innovation gap for European firms. The European Commission notes that Europe faces an "innovation emergency" – European businesses are falling behind U.S. and Japanese rivals in terms of investment and new patents. Read more

EU pledges €90m in climate funds for Pacific island states. EU funding for adaptation measures requires the states to support Europe in international climate negotiations. Read more

UNITED STATES

Non Signatory States

President Obama: All Ideas Welcome on Energy Policy President Barack Obama is pitching the promise of energy independence while cautioning that it's going to be tough to transition from America's oil-dependent economy. <u>View clip</u>

President Obama plans 20% increase in buildings' energy efficiency by 2020. The Administration launched a Better Buildings Initiative which aims to achieve emission cuts in this sector's energy use. Buildings are said to account for 40 percent of US energy consumption and emissions. Improving efficiency would reduce energy use, decrease carbon emissions and result in cost savings for building owners. The Administration seeks to create more financing opportunities for commercial retrofits, including a new pilot program where the Department of Energy will guarantee loans for energy efficiency upgrades at hospitals, schools and other commercial structures. Read more.

EIA: 11% of U.S. Energy Production from Renewable Resources in 2010 The U.S. Energy Information Administration (EIA) recently reported that U.S. energy production from renewable energy sources such as biomass/biofuels, hydro, geothermal, solar, water, and wind energy rose to 10.92% in 2010. Nuclear energy's share dropped to 11.26%. Read more

Secretary Chu Announces Progress on International Initiatives to Promote Clean Energy. U.S. Energy Secretary Steven Chu joined with energy ministers and high-level representatives from more than 20 governments to announce renewed support for 11 international clean energy initiatives at the second Clean Energy Ministerial in Abu Dhabi, United Arab Emirates. These initiatives are helping to accelerate the global transition to a clean energy future. One of the goals is to eliminate the need to build more than 500 mid-size power plants worldwide in the next 20 years.



United States has deposited its instrument of acceptance to join IRENA, becoming the 63rd member. IRENA formed in 2009 in response to growing international interest in the adoption of renewable energy technologies to meet the challenges of sustained economic growth, energy security and climate change. IRENA's mission is to support and expedite member countries' transition to greater renewable energy use by helping identify and facilitate adoption of appropriate and optimal policies, business practices and technologies. Read more or check out the IRENA website.

National Renewable Energy Laboratory offers Free Energy Conservation Software for Buildings. Together, residential and commercial buildings account for a staggering 40 percent of energy use in the United States. However, the U.S. Department of Energy's (DOE) National Renewable Energy Laboratory (NREL) is developing a suite of tools to tame this energy beast — and it is free to anyone who wants to use it. DOE's EnergyPlus is a powerful simulation engine that provides comprehensive building energy modeling. Read more.

UCLA Engineers Demonstrate Use of Proteins as Raw Material for Biofuels. Two types of raw materials are currently used for biorefining and biofuel production: carbohydrates and lipids. Biofuels like ethanol are derived from carbohydrate raw materials such as sugars and lignocellulose, while biodiesels are derived from another raw material, lipid-rich vegetable oil. UCLA researchers demonstrated the feasibility of using proteins — one of the most abundant biomolecules on earth — as a significant raw material for biorefining and biofuel production. Read more.

Department of Defense to Turn Landfill Gases into Sustainable Renewable Clean Energy FlexEnergy, a clean tech company that creates clean energy with near-zero emissions from harmful greenhouse gases, announced its Powerstation technology will allow the Fort Benning, Georgia base to convert its landfill gas, an unconventional energy source, into renewable energy. Read more

U.S. Navy Tests LED's for Energy Savings. The United States Navy is evaluating the use of light emitting diode fixtures aboard several ships and submarines. The Solid State Lighting Project of the Office of Naval Research is evaluating energy-saving, nonhazardous LED fixtures on the submersibles the USS New Hampshire and the USS New Mexico. These two submarines are serving as pilot platforms by with the Navy hopes to measure the savings achieved by this technology. The new lighting fixtures are also being installed for testing on three surface ships – the USS Pearl Harbor, USS Preble and USS Chafee. Read more.

Oklahoma Students Turn Soda to Ethanol. Oklahoma State University students are working to convert soda waste to ethanol. The objective of the project is to determine the ease of fermentation of soda waste into ethanol with the specific goal of determining sugar conversion efficiency for popular sodas. The project's early stages determined soda wastes could be converted to ethanol. Read more





Greening Dentists. U.S. Dental offices flush an estimated 36 billion liters of clean drinking water down the drain every day. They also generate some 10,000 kilos of mercury-laden amalgam waste particles — most of which are washed down the sink — and huge amounts of disposable plastics destined for landfills. A movement is building to "green" America's 125,000-plus dental offices— with dental offices in 45 states and 13 other countries joining in. All took a pledge to reduce their impact on the environment — by installing a machine that separates the amalgam tooth filling particles from the wastewater stream, for example, and using digital X-rays that do not require toxic chemicals. Read more

DOE Approves \$100 Million Loan Aid for U.S. Geothermal. The DOE approved \$96.8 million in loan aid for a power plant project in Oregon sponsored by U.S. Geothermal Inc. The loan guarantee will help build a 23-megawatt geothermal power plant known as Neal Hot Springs. Read more

Electric Vehicle Deployment Advances. The Department of Energy's One Million Electric Vehicles by 2015 (pdf) is an analysis of advances in electric vehicle deployment and progress to date in meeting President Obama's goal of putting one million electric vehicles on the road by 2015. The analysis notes improvements to existing consumer tax credits, programs to help cities prepare for the growing demand for electric vehicles and strong support for research and development to continue reducing the cost of electric vehicles. Read more.

Report: Regional Cap-and-Trade Program Improved State Economies. A regional cap-and-trade program established in the Northeast has reduced greenhouse gas emissions, created new jobs and lowered state energy bills. A new report focuses on the Regional Greenhouse Gas Initiative (RGGI), a 10-state cap-and-trade program in the Northeast. Commissioned by the organization that runs the program, the report analyzes investments made with money generated from a series of emissions-allowance auctions beginning in 2008. Read more.

Winning the Biofuel Future. DOE announced that a research team at its BioEnergy Science Center achieved yet another advance in the drive toward next generation biofuels: using a microbe to convert plant matter directly into isobutanol. Isobutanol can be burned in regular car engines with a heat value higher than ethanol and similar to gasoline. Read more.

DOE Announce Ambitious Drive to Help Cut PV Costs by 75% The DOE launched a new initiative that will bring down the total costs of utility-scale photovoltaic (PV) systems by 75 percent. This will make solar power cost competitive with large-scale energy sources without the help of subsidies by 2020. The "SunShot Initiative" will reduce the cost of large-scale PV installations to further the deployment of solar energy systems across the country. Read more



EVENTS

Conference: The Arctic as a Messenger for Global Processes - Climate Change and Pollution. Copenhagen, May 4th-6th, 2011. Topics covered include the Arctic Cryosphere, Arctic pollution, Global and Arctic systems, Arctic Ecosystems, Human Aspects of Climate Change and Pollution, Science and Policy-Making. Hosts: Arctic Monitoring and Assessment Program (AMAP), University of Copenhagen, and University of Aarhus. Read more here and here<

Symposium on Protein Chemistry, three Nobel laureates participating. The Danish Friends of the University of Haifa, the Danish Weizmann Society and the University of Copenhagen are cosponsoring a symposium, *Protein Chemistry: Applications to Combat Diseases.* The symposium, held at the University from May 23rd-25th, will feature three recent Israeli Nobel laureates in chemistry. American scientists/researchers from Harvard Medical School, the University of Chicago, Rockefeller University and NIH/National Cancer Institute are anticipated to attend. Additional information may be found here.



"HIV in European Region – Unity and Diversity" European Conference to be held in Tallinn, Estonia, from 25th to 27th of May, 2011, with a special focus on the accomplishments and challenges concerning HIV prevention, treatment and care in Eastern European countries. The Conference is expected to bring to Tallinn more than 300 public health experts from nearly 53 countries. Read more

The Nordic Oceans Conference - Seas the Future, Thorshavn, Faroe Islands June 7-8. Topics include discussing trends & future prospects for safe and sustainable international maritime transport in northern seas. Read more

FEATURED STORY

Low Emissions Development Strategies

What are they?

Low Emission Development Strategies (LEDS) are strategic economic development and environmental planning frameworks; they articulate actionable programs pursuing climate-resilient development pathways. LEDS work toward long-term measurable greenhouse gas (GHG) emissions reductions. Countries that map and implement LEDS will be best positioned to grow secure, sustainable and prosperous futures for their citizens and benefit from the new global low carbon economy, through job creation and economic growth. Such countries will also receive future financing from global climate change assistance funding, catalyze private sector investment and anticipate/respond to climate change. A Low Emission Development Strategy considers many factors, including:

- National development and economic goals;
- Inventories of GHG emissions and economic data;



- Long-term business-as-usual economic and emissions projections;
- Alternative low emission development pathways;
- Prioritized actions and implementation plans; and
- Implementation and financing plans.

The U.S. Enhancing Capacity for Low Emission Development Strategies (EC-LEDS) initiative

Enhancing Capacity for Low Emission Development Strategies (EC-LEDS) is a U.S. Government initiative to support developing countries' efforts to pursue long-term, transformative development and accelerate sustainable, climate-resilient economic growth while slowing the growth of greenhouse gas emissions. The initiative will build capacities in partner countries, provide targeted technical assistance, and build a shared global knowledge base on LEDS. This program is country-driven; support for creating and implementing a LEDS will be tailored to each country's unique capacity, technical, analytical, and policy needs. This interagency process includes the State Department, USAID, USDA, EPA, DOE and the USFS. The U.S. is currently working on EC-LEDS in Bangladesh, Colombia, Mexico, Gabon and Vietnam, and will expand efforts to 20 countries by 2013.

U.S. support for country-developed LEDS involves two key approaches. First, the U.S. will match U.S. government technical expertise with partner country needs, while focusing on enhancing partner countries' capacity to develop LEDS. Through targeted support, the U.S. will help enhance and strengthen existing strategies to ensure they are transparent and actionable. The U.S. will also work with both government and civil society partners to strengthen in-country human and institutional capacity, and provide tools and approaches to assist with LEDS management, revision, and implementation. Moreover, the U.S. will identify key policies, programs and financing sources, and assist with designing policies/implementation plans. Additionally, a key U.S. priority is building the long-term capacity for all partner countries to own, manage, improve and guide LEDS implementation. The U.S. will collaborate with governments, stakeholders, practitioners and the international donor community to facilitate the exchange of experience, best practices, data, and results. An initial product of this effort is a new LEDS web portal, available at http://openELorg/LEDS, which provides customized search capability of more than 900 tools, programs, and resources—by sector, geography, LEDS methodology stage and analytical needs.

LEDS as Useful Tools

LEDS addresses many challenges for developing countries, including those related to GHG inventory accounting and energy. Developing countries face the challenges from the lack of accurate, transparent GHG inventories. LEDS can track emissions trends, develop relevant strategies and policies and assess progress—all essential in managing emission. Possible LEDS activities include developing national system templates to document, institutionalize and streamline the process—and software tools to compile data and perform calculations. Urbanization and economic growth also drive increased energy consumption from buildings and appliances. LEDS can assist developing countries by identifying legal, regulatory, policy and institutional barriers, plan implementation, and design monitoring/enforcement systems. Answering these challenges, providing technical analysis of options and impacts of various building codes/appliance standards



could be potential LEDS activities. Finally, LEDS may also accelerate agricultural productivity improvements, increasing food security through higher yields. GHG emissions such as methane would decrease, while general health would be improved with production of certain foodstuffs such as rice with higher nutritional content.

The U.S. Government Process for Developing a LEDS





For more information, please contact Alexia Kelly, U.S. Department of State, Office of Global Change (kellyac@state.gov) or Colin Green, USAID Global Climate Change Team (cgreen@usaid.gov)

